Arbórea Intellbird
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Note of press

HUMMINGBIRD THE NEW DRON TO INSPECT WIND TURBINES IN OPERATION
IT BEGINS ITS TESTS IN SIERRA de DUEÑA

Iberdrola's Sierra de Dueña wind farm hosts the first tests of the revolutionary Hummingbird program, the new drone for the inspection of wind turbine blades from Arbórea Intellbird, the veteran technology company based in the Science Park of the University of Salamanca.

In the mills that crown the escarpments of this beautiful area of the Salamanca lands, Arbórea and Iberdrola began twelve years ago testing Arachnocóptero, the first drone capable of generating a digital twin of the blades of a wind turbine. Later, in 2015, these same machines were used to test Arbórea's technology aimed at incorporating a digital model of the internal structure of the blades. This process, implemented today, revolutionized wind inspection procedures. Currently, this magical enclave, full of biodiversity, is once again the scene of disruptive technology testing. The hummingbird platform incorporates a small drone that allows the blades to be checked in automated flight, without the need to stop the wind turbines. This aircraft is the result of 15 years of continuous technological evolution promoted by the company since the flight of its first Arachnocóptero took place in 2009. The new platform is capable of sending high-resolution data and images directly to Arbórea's computer systems. from any wind farm in the world via satellite network.

The new process provides notable advantages: On the one hand, it is the fastest inspection system at the moment, since a running wind turbine is scanned in less than ten minutes. This avoids the stresses to which the blades are subjected during the stopping processes and eliminates the associated times. On the other hand, the digital information obtained is integrated into Arbórea systems to generate a new updated layer of the digital twin of that blade, which is located in the data cloud. This makes it possible to analyze its evolution and risks in a predictive manner, through procedures patented by the company, which integrate artificial intelligence processes. In this way, problems are detected early, achieving improved efficiency and reduced costs.